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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/039,195	01/02/2002	Jonas Elliott Gerson	G47-002	7217
3775	7590	12/28/2004	EXAMINER	
ELMAN TECHNOLOGY LAW, P.C. P. O. BOX 209 SWARTHMORE, PA 19081-0209			TABATABAI, ABOLFAZL	
			ART UNIT	PAPER NUMBER
			2625	

DATE MAILED: 12/28/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No.	Applicant(s)
	10/039,195	GERSON ET AL.
	Examiner	Art Unit
	Abolfazl Tabatabai	2625

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

1) Responsive to communication(s) filed on 02 January 2002.  
 2a) This action is **FINAL**.      2b) This action is non-final.  
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

4) Claim(s) 1-23 is/are pending in the application.  
 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
 5) Claim(s) \_\_\_\_\_ is/are allowed.  
 6) Claim(s) 1 and 9-17 is/are rejected.  
 7) Claim(s) 2-8 and 18-23 is/are objected to.  
 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

9) The specification is objected to by the Examiner.  
 10) The drawing(s) filed on Jahuary 2, 2002 is/are: a) accepted or b) objected to by the Examiner.  
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
 a) All    b) Some \* c) None of:  
 1. Certified copies of the priority documents have been received.  
 2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)	4) <input type="checkbox"/> Interview Summary (PTO-413)
2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)	Paper No(s)/Mail Date. _____
3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____	5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)
	6) <input type="checkbox"/> Other: _____

**DETAILED ACTION**

**Claim Rejections - 35 USC § 103**

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

2. Claims 1, 9-13 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pinheiro et al (U S 6,641,471 B1) in view of Sentmanat (U S 6,467,149 B2).

Regarding claim 1, Pinheiro discloses a method of designing tread for a traction surface, comprising the steps of:

(a) selecting a substrate surface intended for contact with the traction surface;

(b) characterizing the topography of said substrate surface (column 3, lines 56-

58);

(c) selecting a pattern having fractal characteristics corresponding to said characterized topography of said substrate surface (column 8, lines 63-67 and column 9, lines 1-5); and then,

(d) generating a tread design which incorporates said pattern (column 9, lines 1-5).

However, Pinheiro is silent about the specific details regarding the step of:

(a) selecting a substrate surface intended for contact with the traction surface;

On the other hand Sentmanat discloses an apparatus for injecting materials into a substrate comprising the step of:

(a) selecting a substrate surface intended for contact with the traction surface (column 4, lines 62-67 and ).

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to use traction surface as taught by Sentmanat because Sentmanat provides Pinheiro an improved method for incorporating reinforcement material into a substrate. Such reinforcement may be useful in plastic, polymeric and elastomeric products.

Regarding claim 9, Pinheiro discloses the method of claim 1, wherein said pattern having fractal characteristics comprises elements having rectilinear shape (column 3, lines 44-46).

Regarding claim 10, Pinheiro discloses the method of claim 1, wherein said pattern having fractal characteristics comprises elements having curvilinear shape (column 3, lines 44-46).

Claim 11 is similarly analyzed as claim 9 above.

Regarding claim 12, Pinheiro discloses the method of claim 1, wherein said pattern having fractal characteristics comprises elements of circular shape (column 9, lines 1-9).

Regarding claim 13, Pinheiro discloses the method of claim 1, wherein said pattern having fractal characteristics comprises elements of triangular shape (column 9, lines 1-9).

Regarding claim 17, Pinheiro discloses the method of claim 1, wherein the tread designed by said method is a shoe tread, a belt drive tread, a tire tread, a tread for an elastomeric traction surface, a drive roller tread, a tread for friction wheels for material locomotion, a tread for power transmission, a belt drive tread for a pulley drive or other device requiring friction to transmit a tractional force (column 9, lines 1-9).

3. Claims 14 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pinheiro et al (U S 6,641,471 B1) and Sentmanat (U S 6,467,149 B2) as applied to claim 1 above and further in view of De Longcamp (U S 4,917,162).

Regarding claim 14, Pinheiro and Sentmanat are silent about the specific details the method of claim 1, wherein said pattern having fractal characteristics comprises elements of cone shape.

On the other hand De Longcamp discloses deformable wheel useful for instance as a vehicle wheel. Or in a gearing comprising cone shape (column 13, lines 20-22). It would have been obvious to a person of ordinary skill in the art at the time the invention was made to cone shape as taught by De Longcamp because De Longcamp provides Pinheiro an improved wheel which may be operated under normal load without the necessity of any internal pressure but which, however, has a contact patch which is not less than that of a standard pneumatic tire.

Regarding claim 16, Pinheiro and Sentmanat are silent about the specific details the method of claim 1, wherein said pattern having fractal characteristics comprises elements of cylindrical shape.

On the other hand De Longcamp discloses deformable wheel useful for instance as a vehicle wheel. Or in a gearing comprising cone shape (column 1, lines 18-25).

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to use cylindrical shape as taught by De Longcamp because De Longcamp provides Pinheiro an improved wheel which may be operated under normal load without the necessity of any internal pressure but which, however, has a contact patch which is not less than that of a standard pneumatic tire.

4. Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over Pinheiro et al (U S 6,641,471 B1) and Sentmanat (U S 6,467,149 B2) as applied to claim 1 above and further in view of Boscaino (U S 3,794,093).

Regarding claim 15, Pinheiro and Sentmanat are silent about the specific details the method of claim 1, wherein said pattern having fractal characteristics comprises elements of H shape.

On the other hand Boscaino discloses deformable wheel useful for instance as a vehicle wheel. Or in a gearing comprising cone shape (column 1, lines 18-25).

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to use cylindrical shape as taught by Boscaino because Boscaino provides a simplified construction of a tire especially useful in mud or snow or on ice or other low friction surface.

## **Allowable Subject Matter**

5. Claims 2-8 and 18-23 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

## **Other Prior Art**

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Rockart et al (U S 5,075,067) disclose tire and method of producing the same.

Holland et al (U S 5,859,919) disclose method and system for measuring surface roughness using fractal dimension values.

Bauman et al (U S 5,693,714) disclose higher modulus compositions incorporating particular rubber.

## Contact Information

7. Any inquiry concerning this communication or earlier communications from the Examiner should be directed to ABOLFAZL TABATABAI whose telephone number is (703) 306-5917.

The Examiner can normally be reached on Monday through Friday from 9:30 a.m. to 7:30 p.m. If attempts to reach the examiner by telephone are unsuccessful, the Examiner's supervisor, Mehta Bhavesh M, can be reached at (703) 308-5246. The fax phone number for organization where this application or proceeding is assigned is (703) 872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Abolfazl Tabatabai

Patent Examiner

Group Art Unit 2625

December 24, 2004

*A. Tabatabai*